



## Overview

### Points To Remember About Raynaud's Phenomenon

- Raynaud's phenomenon is a disease that affects your blood vessels.
- There are two forms of Raynaud's phenomenon: Primary and secondary.
- The form of Raynaud's phenomenon you have affects the symptoms you have.
- Symptoms of Raynaud's phenomenon can vary from mild to severe. Most people have mild symptoms.
- There are treatments to prevent or control the symptoms of Raynaud's phenomenon.
- There is no way to prevent Raynaud's phenomenon, but you can prevent an attack.

Raynaud's phenomenon is a condition that affects your blood vessels. It causes some areas of your body, especially your hands and feet, to feel numb and cold in response to cold temperatures or stress. Raynaud's phenomenon is also called Raynaud's disease or Raynaud's syndrome.

### What happens in Raynaud's phenomenon?

If you have Raynaud's phenomenon you have “attacks” when your body does not send enough blood to your hands and feet. Attacks usually happen when you are cold or feeling stressed. During an attack, your fingers and toes may feel very cold or numb and may change color. These attacks are also known as vasospasms.

Once an attack begins, you may experience three phases of skin color changes—typically from white to blue to red—in your fingers or toes.

- Whiteness (called pallor) may occur in response to the collapse of the veins that supply the fingers and toes with blood.
- Blueness (called cyanosis) may appear because the fingers or toes are not getting enough

oxygen-rich blood.

- Finally, as blood returns to the fingers and toes, redness (rubor) may occur. During this stage, the fingers and toes may tingle or throb.

During an attack, your blood flow to the skin will remain low until the skin is rewarmed. After warming, it usually takes 15 minutes to recover normal blood flow to the skin.

Your prognosis often depends on what form of the disease you have and what underlying health condition(s) you have. Many people with Raynaud's phenomenon have mild symptoms that do not cause any blood vessel or tissue damage. These symptoms are easily managed, often without medicines. Others have more severe symptoms. For most people with Raynaud's phenomenon, the disease is lifelong.

## Who Gets

Anyone can get Raynaud's phenomenon but some people are more at risk for developing the disease. Risk factors include:

- **Your sex:** Women are more likely to develop Raynaud's phenomenon.
- **Where you live:** People who live in cold places are more likely to develop Raynaud's phenomenon.
- **Certain health conditions:** Certain health conditions increase the risk of Raynaud's phenomenon.

It is especially common in people who have connective tissue diseases, which affects how blood flows to the organs and other body tissues. Connective tissue diseases include:

- [Lupus](#), which causes the immune system to attack healthy tissues in the body.
- [Scleroderma](#), which causes the skin and other tissues in the body to harden.
- [Sjögren's syndrome](#), which causes dryness in the mouth and eyes.

Other health conditions can also increase your risk of developing Raynaud's phenomenon. These include:

- Carpal tunnel syndrome, which affects nerves in the wrists.
- Blood vessel disease, which causes the blood vessels in the legs, arms, and belly to narrow.

**Medicines:** Taking certain medicines increasing your risk of developing Raynaud's phenomenon. These include:

- Medicines used to treat high blood pressure, migraines, or cancer.
- Over-the-counter cold medicines.
- Narcotics.

**Your job:** People with certain jobs may be more likely to develop Raynaud's phenomenon. These include:

- People who are around certain chemicals.
- People who use tools that vibrate, such as a jackhammer.

**Genetics:** Some research suggests that Raynaud's phenomenon runs in certain families, but more research is needed.

## Types

There are two types of Raynaud's phenomenon.

- Primary Raynaud's phenomenon occurs for an unknown reason. It is the more common form of Raynaud's phenomenon.
- Secondary Raynaud's phenomenon is caused by another health condition, such as lupus or scleroderma. Secondary Raynaud's phenomenon is less common but more serious than the primary form of the disease.

## Symptoms

During an attack, your body limits blood flow to the hands and feet. This makes your fingers and toes feel cold and numb. It may also cause your fingers and toes to turn white or blue. Once blood flow to the fingers and toes returns, they may turn red, tingle and begin to hurt.

The symptoms of the primary form of Raynaud's phenomenon usually begins between the ages of 15 and 25. The symptoms of the secondary form of Raynaud's phenomenon usually start after the ages of 35 to 40.

For many people, especially those with a primary form of Raynaud's phenomenon, the symptoms are mild and not very troublesome. Others have more severe symptoms.

## Causes

Doctors do not know exactly what causes Raynaud's phenomenon to develop, but they do know some causes of attacks.

Usually when a person is exposed to cold, the body tries to slow the loss of heat and maintain its temperature. To do so, blood vessels in the surface of the skin move blood from veins near the skin's surface to veins deeper in the body. In people with Raynaud's phenomenon, blood vessels in the hands and feet appear to overreact to cold temperatures or stress. They narrow

and limit blood supply.

## Diagnosis

There is no single test to diagnose Raynaud's phenomenon. Doctors usually diagnose Raynaud's phenomenon after taking a complete medical history, an exam, and tests. Tests may include:

- Blood tests.
- Looking at fingernail tissue with a microscope.

If you are diagnosed with Raynaud's phenomenon, your doctor will likely perform more tests to determine what form of the disease you have.

- **Nailfold capillaroscopy:** During this test, your doctor will put a drop of oil on your nailfolds, the skin at the base of the fingernail. Your doctor will then examine your nailfolds under a microscope to look for problems in the tiny blood vessels called capillaries. If your capillaries are enlarged or malformed, you may have a connective tissue disease.
- **Antinuclear antibody (ANA) test:** In this blood test, the doctor determines whether your body is producing special proteins called antibodies. These abnormal antibodies are often found in people who have connective tissue diseases or autoimmune disorders.
- **Erythrocyte sedimentation rate (ESR or sed rate):** This blood test measures how quickly your red blood cells fall to the bottom of a test tube of unclotted blood. Red blood cells that fall rapidly may suggest you have inflammation in your body. This is a sign that you may have an inflammatory disease.

## Treatment

There are several treatments for Raynaud's phenomenon. The goal of treatment is to:

- Reduce how many attacks you have.
- Make attacks less severe.
- Prevent tissue damage.
- Prevent loss of finger and toe tissue.

### Treatment for Primary Raynaud's Phenomenon

People with the primary form of Raynaud's phenomenon are rarely treated with medication. Most people with the primary form of Raynaud's phenomenon can prevent or manage the disease without medicine. Strategies include:

- Keep your hands and feet warm and dry.
- Warm your hands and feet with warm water.
- Avoid air conditioning.

- Wear gloves to touch frozen or cold foods.
- Wear many layers of loose clothing and a hat when it's cold.
- Use chemical warmers, such as small heating pouches that can be placed in pockets, mittens, boots, or shoes.
- Talk to your doctor before exercising outside in cold weather.
- Don't smoke.
- Avoid medicines that make symptoms worse.
- Control stress.
- Exercise regularly.

## **Treatment for Secondary Form of Raynaud's Phenomenon**

People with the secondary form of Raynaud's phenomenon are more likely than those with the primary form to be treated with medicines. If you have the secondary form of Raynaud's phenomenon, your doctor may prescribe medicines because severe attacks that cause ulcers or tissue damage are more likely. Medicines used to treat Raynaud's phenomenon include:

- Blood pressure medicines.
- Medicines that relax blood vessels.

Pregnant woman should not take these medicines.

## **Surgery**

If you have a severe case of Raynaud's phenomenon, you may need surgery to restore blood flow to parts of the body affected by the disease.

## **Living With**

There are steps you can take to decrease the number of Raynaud's attacks you have and the severity of these attacks.

- Keep warm. Set your thermostat to a higher temperature. You lose a lot of body heat through your head; wear a hat. Keep your feet warm and dry. In cold weather, wear several layers of loose clothing, socks, hats, and gloves or mittens. Keep pocket warmers in your pockets if you are will be outside for a long time. Use insulated drinking glasses when drinking something cold. Put on gloves before handling frozen or refrigerated foods.
- Avoid rapidly shifting temperatures and damp climates. Rapidly moving from 90 degrees outside to a 70-degree air-conditioned room can bring on an attack. So can damp rainy weather.
- Avoid air conditioning. In warm weather, air conditioning also can bring on attacks.
- Do not smoke. The nicotine in cigarettes causes the skin temperature to drop, which may lead to an attack.
- Avoid medicines that bring on attacks. Certain medicines cause the blood vessel to narrow, which can bring on an attack. These include beta-blockers, cold preparations, caffeine, narcotics, some migraine headache medications, and some chemotherapy

drugs. Talk to your doctor before starting any new medicines. Do not stop any medicines you are taking without talking to your doctor first.

- Control stress. Because stress can bring on an attack, learning how to manage or control stress is important. Talk to your doctor about stress reduction techniques.
- Exercise regularly. Exercise can improve your overall well-being. In addition, it can increase your energy level, help control your weight, keep your heart healthy, and improve sleep. Talk to your doctor before starting an exercise program.

## Research Progress

Research is underway to help people with Raynaud's phenomenon, including:

- New ways to find and treat the problem.
- New medicines to improve blood flow.
- Supplements and herbal treatments, but these have been found ineffective in most studies.
- A better understanding of what causes the disease.

## Related Resources

### **U.S. Food and Drug Administration**

Toll free: 888-INFO-FDA (888-463-6332)

Website: <https://www.fda.gov>

Drugs@FDA at <https://www.accessdata.fda.gov/scripts/cder/daf>. Drugs@FDA is a searchable catalog of FDA-approved drug products.

### **Centers for Disease Control and Prevention, National Center for Health Statistics**

Website: <https://www.cdc.gov/nchs>

### **National Heart, Lung, and Blood Institute**

Website: <https://www.nhlbi.nih.gov>

### **American College of Rheumatology**

Website: <https://www.rheumatology.org>

### **Arthritis Foundation**

Website: <https://www.arthritis.org>

### **Lupus Foundation of America**

Website: <http://www.lupus.org>

### **Scleroderma Foundation**

Website: <http://www.scleroderma.org> (con información en español)

### **Scleroderma Research Foundation**

Website: <http://www.srfcure.org>

**Sjogren's Syndrome Foundation, Inc.**

Website: <http://www.sjogrens.org>

If you need more information about available resources in your language or other languages, please visit our webpages below or contact the NIAMS Information Clearinghouse at [NIAMSInfo@mail.nih.gov](mailto:NIAMSInfo@mail.nih.gov).

- [Asian Language Health Information](#)
- [Spanish Language Health Information](#)

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[Scleroderma, Handout on Health](#)

[Raynaud's Phenomenon, Questions and Answers about](#)